

PATENT

Attorney Docket No. A-68851-1/RMS/VEJ  
Attorney Matter No. 469249-00162  
Application No. 09/493,741

**REMARKS**

Reconsideration of this Application is respectfully requested. Applicant thanks the Examiner for calling and the courtesy extended during the telephone conversation between the Examiner and the undersigned on March 9, 2004.

Upon entry of the foregoing amendments, claims 39-49 are pending in the application, with claim 39 being the independent claim. Claims 27-38 have been canceled without prejudice or disclaimer. Applicant submits the foregoing amendments do not raise new issues and present the claims in better form for consideration on appeal if not in condition for allowance.

Based on the above Amendment and the following Remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided below.

***Rejections under 35 U.S.C. § 102******Claims 39-41 and 43-45***

The Examiner has rejected claims 39-41 and 43-45 under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 3,712,535 to Genese et al. ("the Genese patent"). The Genese patent lacks the apparatus of the present invention including a centrifuge having a rotor rotatable about an axis of rotation which includes at least one reaction vessel at a permanently fixed angle tilted with respect to said axis of rotation so that an open end of said at least one reaction vessel is pointed away from said axis of rotation, as is called for by independent claim 39.

The Genese patent does not disclose a rotor having fixed reaction vessels. Instead, the Genese patent discloses an apparatus having a turntable 10 that supports pivotally mounted

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trunnions 30 which, in turn, pivotally supports test tubes or vials 38. *See column 3, lines 40-50, FIG. 2.* The trunnions are pivotally mounted to the turntable by mounting pins 31. *See FIG. 1.* The pivotal configuration allows trunnions 30 and vials 38 to move between different positions. *See column 6, lines 28 et seq.* In particular, trunnions 30 and vials 38 are movable between positions A, B and C, and may even reciprocate between positions A and C to agitate the contents of the vials. *See id.*

The Examiner has taken the position that the reaction vessels of the Genese apparatus, that is, vials 38 are "at a fixed angle tilted with respect to said axis of rotation ... " during the decanting step. Applicants respectfully submit that such interpretation not only goes against the plain meaning of the claim, such interpretation is also contrary to the meaning of "fixed" as used in the centrifugation art.

Claim 39 calls for a centrifuge having a rotor rotatable about an axis of rotation which includes at least one reaction vessel at a permanently fixed angle tilted with respect to the axis of rotation, that is, a reaction vessel that is immobile (i.e., incapable of being moved). *See "fixed" and "immobile", MERRIAM-WEBSTER ONLINE ([www.Merriam-Webster.com](http://www.Merriam-Webster.com)) copyright 2004 by Merriam-Webster Incorporated, Springfield, Massachusetts ("fixed" and "immobile" printouts attached).*

Furthermore, it is convention to refer to centrifuge rotors having reaction vessels oriented in an immovable angle as "fixed angle" rotors. *See <http://www.voigtglobal.com/centrifuge.htm> (printout attached); see also [http://www.spendloveresearch.org/XSPages/Centrifuges\\_Rotors.htm](http://www.spendloveresearch.org/XSPages/Centrifuges_Rotors.htm) (printout attached).* In contrast, it is convention to refer to rotors having reaction vessels which move or tilt as "swinging bucket" rotors. *See id.* Those skilled in the art would consider the two types of rotors distinct because fixed angle rotors generally run at higher speeds for small volumes, while swinging bucket rotors generally process large volumes at slower speeds. *See id.*

Thus, Applicants respectfully submit that the Genese patent fails to disclose, teach or suggest a permanently fixed angle rotor, that is, a rotor having reaction vessels oriented in an immovable angle with respect to the axis of rotation. Instead, the Genese patent discloses a

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reaction vessel that "is movable to different positions." *See Office Action dated December 22, 2003 ("Office Action"), page 8, section 9.* Thus, the Genese patent discloses a "swinging bucket" rotor instead of the claimed rotor having a reaction vessel at a permanently fixed angle.

For at least these reasons, Applicant respectfully submits that the Genese patent does not anticipate presently amended claim 39. Applicant submits that claims 40, 41 and 43-45, which depend from claim 39, are allowable over the cited art for at least the same reason noted above.

*Rejections under 35 U.S.C. § 103*

*Claims 27-49*

The Examiner has rejected claims 27-49 under 35 U.S.C. § 103 as being unpatentable over Japanese Patent No. 64-83153 to Tamai ("the Tamai patent") in view of the Genese patent and U.S. Patent No. 4,412,973 to Guigan ("the Guigan patent"). Claims 27-38 have been cancelled without prejudice or disclaimer. Applicants respectfully submit the rejection of claims 27-38 are rendered moot by the cancellation thereof.

With respect to independent claim 39, the Tamai patent, the Genese patent and the Guigan patent, taken individually or combined, fail to disclose or suggest the claimed apparatus including a centrifuge having a rotor rotatable about an axis of rotation which includes at least one reaction vessel at a permanently fixed angle tilted with respect to said axis of rotation so that an open end of said at least one reaction vessel is pointed away from said axis of rotation.

The Examiner indicated that the Tamai patent does not disclose microtiter plates held in a tilted position away from the axis of rotation of the rotor. *See Office Action, page 5.* The Examiner relies on the teachings of the Genese patent to make up for the deficiencies of the Tamai patent. However, and as noted above, the Genese patent fails to disclose a fixed angle rotor. Thus, the Genese patent fails to make up for the deficiencies of the Tamai patent.

Furthermore, Applicants respectfully submit that one would not be inclined to modify the higher-speed/small-volume fixed-angle plates disclosed by the Tamai patent in light of the

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slower-speed/large-volume pivoting trunnions/vial configuration disclosed by the Genese patent. The Tamai patent is directed to an apparatus for measuring micro-immunoassays. See English-language abstract. Such an apparatus is designed for small volumes (i.e., micro-immunoassays). *See id.* As noted above, fixed angle rotors are generally configured for small volumes, while swinging bucket rotors generally process large volumes. Thus, one skilled in the art would not look to the sample holder disclosed by the Genese patent, which sample holder is configured to pivotally support large-volume test tubes or vials 38, for improvements upon the microplates 4 disclosed by the Tamai patent.

Applicants respectfully submit that the Guigan patent also fails to make up for the deficiencies of the Tamai patent. The Guigan patent fails to disclose or suggest reaction vessel at a permanently fixed angle tilted with respect to the axis of rotation.

For at least these reasons, Applicant respectfully submits that the Tamai, Genese and Guigan patents, taken individually or combined, do not render independent claim 39 obvious. Applicant submits that claims 40-49, which depend from claim 39, are allowable over the cited art for at least the same reasons noted above.

#### *Claims 27, 28, 30-36 and 38*

The Examiner has rejected claims 27, 28, 30-36 and 38 under 35 U.S.C. § 103 as being unpatentable over the Guigan patent in view of the Genese patent. Claims 27-38 have been cancelled without prejudice or disclaimer. Thus, Applicants respectfully submit the rejection of claims 27, 28, 30-36 and 38 are rendered moot by the cancellation thereof.

#### **CONCLUSION**

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

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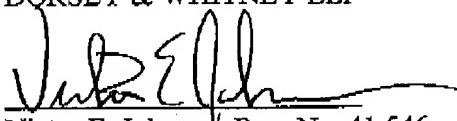
The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extension of time or additional claims, and/or credit any overpayment to Deposit Account No. 50-2319 (Order No. 469249-00162; Docket No. A-68851-1/RMS/VEJ).

Prompt and favorable consideration of this Amendment and Response is respectfully requested.

Respectfully submitted,

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